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09/484,306	01/18/2000	Yoshio Kondo	450100-4490.5	9534

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EXAMINER

WALSH, DANIEL I

ART UNIT PAPER NUMBER

2876

DATE MAILED: 09/23/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/484,306

Applicant(s)

KONDO ET AL.

Examiner

Daniel I Walsh

Art Unit

2876

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☒ Certified copies of the priority documents have been received in Application No. 09088590 and 09086788
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4, 6, 7 & 9.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Specification

1. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

The following title is suggested: -- Memory card with write-protection switch --.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1-17 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The use of the phrase "substantially rectangular" renders the claims vague/indefinite since it is unclear if the card is rectangular or not.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

3. Claims 1, 2, 3, and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Inoue et al. (US 5,016,086) in view of Robinson et al. (US 5,388,248), Hafner et al. (US 5,925,928), and Iwasaki (US 6,145,023).

Inoue et al. teaches a memory card (FIG. 1) for storing data written thereto from an external device. Inoue et al. Teaches the card has a substantially rectangular card body with first and second rectangular surfaces and edges between the surfaces through FIG. 1. Connector portion 4 and pins 41 are interpreted to include terminals provided in the vicinity of one of the edges between the surfaces, for inputting data from/outputting data to the external device (col 2, lines 47+), but fails to teach terminals on one of the rectangular surfaces. However, at the time the invention was made, it would have been an obvious matter of design variation to dispose the terminals on the surface of the card, as opposed to an edge, since it appears that the terminals on the edge functions just as well, and that having the terminals on the surface of the card does not solve a specific problem or serve a specific/unique function that cannot be met by having the terminals on the edge of the card. Inoue et al. teaches a storage device disposed in the card body for storing data from the terminals, through ic's 21-23 which include a memory. It is well

known in the art and understood that the memory is used to store data received externally into the card. Inoue et al. teaches switch 5, terminals 51-52, and slider 53 which sets the writing states (col 2, lines 54+), and therefore is interpreted to include a switch located on one of the edges between the surfaces and operable to a state to prevent the data stored in the storage device from being erased. It is well known in the art that a control circuit inherently exists between the terminals and storage for writing data from an external device to the storage and for reading out stored data to the terminals from the storage device. Further, Inoue et al. teaches the use of a printed board accommodated in the interior of a case 1, where the ic's are mounted on, and which are connected by a predetermined wiring circuit pattern, and Inoue also teaches that the connector pins and terminals are connected to respective lead portions led out from a predetermined circuit portion of the wiring circuit pattern (col 2, lines 40+). Therefore, it is understood that the terminals and the memory are electrically connected in a manner that is well known and obvious in the art, to permit the bi-directional transfer of data between the data storage and the terminals. However, Inoue et al. does not specifically teach that the control circuit electrically connected between the terminals and storage for conducting the bi-directional transfer of data also supplies a status signal to the terminals indicating the status of the switch.

Robinson et al. teaches a status control signal through write protect signal WP which reflects the status of the switch 116 of the memory card, and is received at output pin 33 of the terminal (FIG. 2).

Hafner et al. teaches that terminals are provided on one of the rectangular surfaces through FIG. 1.

Iwasaki teaches that a switch is located on one of the surfaces and operable to a state to

prevent the data from being erased through write protect tab 5, slider 5a, and opening window 5b.

At the time the invention was made, it would have been obvious to an artisan of ordinary skill in the art to combine the teachings of Inoue et al. with those of Robinson et al., Hafner et al., and Iwasaki.

One would have been motivated to do so to provide a data card with write protection means which are well known and understood in the art (re floppy discs) that allows for bi-directional transfer of data between the card and external device that is reliably controlled by circuit logic, that is cost effective, and that communicates and functions in a well known and understood manner, and thus is compatible with existing systems.

Re claim 2, the slide member is in a recess disposed on a surface, as seen through FIG. 5A and 5B.

Re claim 3, as seen in FIG. 5A and 5B, the switch is moveable side to side toward and away the edges, and that the position of the switch determines the state of the switch, as such is well known and obvious in the art.

Re claim 8, since the switch/slider is a mechanical one, it is understood that it remains operable when used with an external device (i.e. switching the switch to break contact will still physically break contact and alter the write/reading state when the card is in used with an external device).

4. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Inoue et al. (US 5,016,086) as modified by Robinson et al., Hafner et al., and Iwasaki as applied to claim 1 above, and further in view of Kokubu (US 5,710,421),

Re claim 9, it is obvious and well known in the art to transmit data in a smart card/smart card system serially. Further, Kokubu teaches that data is received and transmitted by/from the card control circuit in serial form through "(16) Then, when the reset signal is canceled, the control section 19 is started. The control section 19 first reads out an ID code specifically assigned to the IC card 28 from the storing section 20, and converts the ID code into serial data, and then transmits the serial data to the terminal via the contact 10 and the contact of the terminal. Upon receiving the ID code of the IC card 28, the terminal performs predetermined operation and then, in accordance with the operation, transmits to the control section 19 a read-out or write-in command signal in the form of serial data. The control section 19 reads out data from the storing section 20 in accordance with the command signal, and then converts the data into serial data or writes in the storing section 20 the serial data transmitted from the terminal" (col 4, lines 40+).

At the time the invention was made, it would have been obvious to an artisan to combine the teachings of Inoue et al., Robinson et al., Hafner et al., and Iwasaki with those of Kokubu.

One would have been motivated to do this to ensure that the card communicates data in serial form, as an obvious expedient to present data in a form that can be easily processed and accepted, and also one that is well known in the art.

5. Claims 10, 11, and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Inoue et al. (US 5,016,086) in view of Robinson et al. (US 5,388,248) and Hafner et al. (US 5,925,928).

Inoue et al. teaches a memory card (FIG. 1) for storing data written thereto from an external device. Inoue et al. Teaches the card has a substantially rectangular card body with first

and second rectangular surfaces and edges between the surfaces through FIG. 1. Connector portion 4 and pins 41 are interpreted to include terminals provided in the vicinity of one of the edges between the surfaces, for inputting data from/outputting data to the external device (col 2, lines 47+), but fails to teach terminals on one of the rectangular surfaces. However, at the time the invention was made, it would have been an obvious matter of design variation to dispose the terminals on the surface of the card, as opposed to an edge, since it appears that the terminals on the edge functions just as well, and that having the terminals on the surface of the card does not solve a specific problem or serve a specific/unique function that cannot be met by having the terminals on the edge of the card. Inoue et al. teaches a storage device disposed in the card body for storing data from the terminals, through ic's 21-23 which include a memory. It is well known in the art and understood that the memory is used to store data received externally into the card. Inoue et al. teaches switch 5, terminals 51-52, and slider 53 which sets the writing states (col 2, lines 54+), and therefore is interpreted to include a switch located on one of the edges between the surfaces and operable to a state to prevent the data stored in the storage device from being erased. It is well known in the art that a control circuit inherently exists between the terminals and storage for writing data from an external device to the storage and for reading out stored data to the terminals from the storage device. Further, Inoue et al. teaches the use of a printed board accommodated in the interior of a case 1, where the ic's are mounted on, and which are connected by a predetermined wiring circuit pattern, and Inoue also teaches that the connector pins and terminals are connected to respective lead portions led out from a predetermined circuit portion of the wiring circuit pattern (col 2, lines 40+). Therefore, it is understood that the terminals and the memory are electrically connected in a manner that is well

known and obvious in the art, to permit the bi-directional transfer of data between the data storage and the terminals. However, Inoue et al. does not specifically teach that the control circuit electrically connected between the terminals and storage for conducting the bi-directional transfer of data also supplies a status signal to the terminals indicating the status of the switch.

Robinson et al. teaches a status control signal through write protect signal WP which reflects the status of the switch 116 of the memory card, and is received at output pin 33 of the terminal (FIG. 2).

Hafner et al. teaches that terminals are provided on one of the rectangular surfaces through FIG. 1.

At the time the invention was made, it would have been obvious to combine the teachings of Inoue et al. with those of Robinson et al. and Hafner et al.

One would have been motivated to do this in order to have a card that has terminals disposed on the surface of the card to be used with a specific card reading setup, and one that can protect the data within the memory through a physical switch and through more intelligent signaling/control means (circuits), thus providing a card that is reliable and able to secure and maintain data, while remaining cost effective and compatible with existing systems.

Re claim 11, Inoue et al. teaches that the switch has a slider located in a recess of one edge through FIG. 2 and slider 53.

Re claim 16, Inoue et al. teaches that the switch is operable while the memory card is used with the external device through FIG.1 and FIG. 5, where it is understood that since the switch makes or breaks an connection physically, it remains operable when in use with an external device.

6. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Inoue et al. (US 5,016,086) as modified by Robinson et al. and Hafner et al., as applied to claim 10 above, and further in view of Kokubu (US 5,710,421),

Re claim 17, it is obvious and well known in the art to transmit data in a smart card/smart card system serially. Further, Kokubu teaches that data is received and transmitted by/from the card control circuit in serial form through "(16) Then, when the reset signal is canceled, the control section 19 is started. The control section 19 first reads out an ID code specifically assigned to the IC card 28 from the storing section 20, and converts the ID code into serial data, and then transmits the serial data to the terminal via the contact 10 and the contact of the terminal. Upon receiving the ID code of the IC card 28, the terminal performs predetermined operation and then, in accordance with the operation, transmits to the control section 19 a read-out or write-in command signal in the form of serial data. The control section 19 reads out data from the storing section 20 in accordance with the command signal, and then converts the data into serial data or writes in the storing section 20 the serial data transmitted from the terminal" (col 4, lines 40+).

At the time the invention was made, it would have been obvious to an artisan to combine the teachings of Inoue et al., Robinson et al., and Hafner et al. with those of Kokubu.

One would have been motivated to do this to ensure that the card communicates data in serial form, as an obvious expedient to present data in a form that can be easily processed and accepted, and also one that is well known in the art.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

7. Claims 1-8 and 10-16 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1, 3, and 5-9 of U.S. Patent No. 6,170,743 (hereinafter '743). Although the conflicting claims are not identical, they are not patentably distinct from each other because the present claimed invention is a broader recitation of the '743 Patent.

For instance:

In claim 1 of the present claimed invention and claim 1 of the '743 Patent, the Applicants claim:

- i) "a memory card for storing data written thereto from an external device..." (see claim 1) whereas in the '743 Patent, the Applicants claim "a memory card for storing data transmitted from an external apparatus..." (see claim 1).

In claim 2 of the present claimed invention and claim 3 of the '743 Patent, the Applicants claim:

ii) "The memory card of claim 1 wherein said switch has a slide member located in a recess disposed on said one surface" (see claim 2) whereas in the '743 Patent, the Applicants claim "A memory card as claimed in claim 1, wherein said memory card has first and second main surfaces, and wherein said switch is provided on one of said surfaces of said memory card" (see claim 3).

In claim 3 of the present claimed invention and claim 5 of the '743 Patent, the Applicants claim:

iii) "The memory card of claim 2, wherein said switch is reciprocally movable in a side-to-side manner..." (see claim 3) whereas in the '743 Patent, the Applicants claim "A memory card as claimed in claim 1, wherein said memory card has first and second longitudinal edges; and wherein said switch is slideable toward one and away from the other of said longitudinal edges" (see claim 5).

In claim 4 of the present claimed invention and claims 6 and 8 of the '743 Patent, the Applicants claim:

iv) "The memory card of claim 1 wherein said control circuit is responsive to a read status instruction signal from said external device to supply said status signal to said terminals" (see claim 4) whereas in the '743 Patent, the Applicants claim "a controller for writing data to or erasing data from said memory card by first sending a read status instruction to said memory

card..." (see claim 6) and "The combination of a memory card an external apparatus, wherein data is communicated...control means for controlling said memory card in accordance with an instruction transmitted from said external apparatus, said control means providing an indication of the state of said switch in response to a read status instruction transmitted from said external apparatus..." (see claim 8)

In claim 5 of the present claimed invention and claims 6 and 7 of the '743 Patent, the Applicants claim:

v) "The memory card of claim 4 wherein said control circuit is responsive to a write instruction signal from said external device to write data to said storage device; and wherein said read status instruction signal precedes said write instruction signal" (see claim 5) whereas in the '743 Patent, the Applicants claim "a controller for writing data to or erasing data from said memory card by first sending a read status instruction to said memory card..." (see claim 6) and "...wherein said controller sends said read status instruction each time before sending a write instruction" (see claim 7).

In claim 6 of the present claimed invention and claims 6 and 7 of the '743 Patent, the Applicants claim:

vi) "The memory card of claim 4 wherein said control circuit is responsive an erase instruction signal from said external device to erase data stored in said storage device; and wherein said read status instruction signal precedes said erase instruction signal. However, an

erase instruction signal is interpreted as a write instruction signal, and therefore claim 6 of the present claim invention is rejected in the same manner as claim 5, above.

In claim 7 of the present claimed invention and claim 9 of the '743 Patent, the Applicants claim:

vii) "The memory card of claim 4 wherein said data written to said storage device comprises a data file; and wherein said read status signal is supplied prior to writing a data file to or erasing a data file from said storage device" (see claim 7). The limitations of this claim have been discussed above, except for the storage device having a data file. However, at the time the invention was made, it would have been obvious to an artisan of ordinary skill in the art for a storage device to comprise a file/data file since it is well known for storage devices to store files, data files, and electronic data in various forms.

In claim 8 of the present claimed invention and claim 9 of the '743 Patent, the Applicants claim:

viii) "The memory card of claim 1 wherein said switch is operable while said memory card is used with said external device" (see claim 8) whereas in the '743 Patent, the Applicants claim "The combination of claim 8 wherein said switch is operable while said memory card is connected to said external apparatus..." (see claim 9).

Claims 1, 2, and 4-8 and 10-16 are almost identical except for the limitation in claims 10-16 that the switch is located on one of the edges between the surfaces, as opposed to on the surface as in claims 1, 2, and 4-8. However, at the time the invention was made, it would have

been obvious to an artisan of ordinary skill in the art to have a different location for the switch as an obvious matter of design variation, since it does not provide a technical/functional advantage over the other switch orientation. For that reason, claims 10-16 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1, 3, and 5-9 of U.S. Patent No. 6,170,743 (hereinafter '743) as discussed above re claims 1, 2, and 4-8.

8. Claims 9 and 17 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1, 3, and 5-9 of U.S. Patent No. 6,170,743 (hereinafter '743) in view of claim 3 of U.S. Patent No. 6,109,939 (hereinafter '939). Although the conflicting claims are not identical, they are not patentably distinct from each other because the present claimed invention is a broader recitation of the '743 Patent.

For Instance:

In claim 9 of the present claimed invention and claim 1 of the '743 Patent in view of claim 3 of the '939 Patent, the Applicants claim:

ix) "The memory card of claim 1 wherein said switch is operable while said memory card is used with said external device" (see claim 8) whereas in the '743 Patent, the Applicants claim 1 has been discussed above. Further, re the '939 Patent, the Applicants teach "The memory card as set forth in claim 1, wherein signals are transmitted to and from the memory card in serial form" (see claim 3). At the time the invention was made, it would have been obvious to an artisan of ordinary skill in the art to combine the teachings of the '939 Patent with

those of the '743 Patent in order to have a device that specifically transmits data in a format that is well known in the art, to facilitate communication.

In claim 17 of the present claimed invention and claim 1 of the '743 Patent in view of claim 3 of the '939 Patent, the limitations have been discussed above re claim 9 of the present claim Application.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure: Kondo et al. (US 6,361,369), Matsubara (US 5,751,765), Fuse et al. (US 6,330,634), Okaue et al. (US 6,170,743), Shimada (US 5,832,285), Hara (US 4,797,542), Rose (US 6,011,677), Shibata et al. (US 6,343,744), and Takada et al. (JP 02001135383A).

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Daniel Walsh** whose telephone number is (703) 305-1001. The examiner can normally be reached between the hours of 7:30am to 4:00pm Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael G. Lee can be reached on (703) 305-3503. The fax phone numbers for this Group is (703) 308-7722, (703) 308-7724, or (703) 308-7382.

Communications via Internet e-mail regarding this application, other than those under 35 U.S.C. 132 or which otherwise require a signature, may be used by the applicant and should be addressed to [daniel.walsh@uspto.gov].

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D. Walsh

All Internet e-mail communications will be made of record in the application file. PTO employees do not engage in Internet communications where there exists a possibility that sensitive information could be identified or exchanged unless the record includes a properly signed express waiver of the confidentiality requirements of 35 U.S.C. 122. This is more clearly set for the in the Interim Internet Usage Policy published in the Official Gazette of the Patent and Trademark on February 25, 1997 at 1195 OG 89.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0956.

DW
8/26/02

A handwritten signature in black ink, appearing to read 'Karl D. Frech', written in a cursive style.

KARL D. FRECH
PRIMARY EXAMINER